

CLAIMS:-

1. A printhead assembly for carrying a printhead, comprising:
an elongated core;
5 a MEMS printhead bonded to the core;
the core being contained within an outer laminated shell, the shell and core together
having an effective coefficient of thermal expansion substantially equal to that of
the printhead.
- 10 2. A printhead assembly according to claim 1, wherein:
the outer shell is formed from different materials laminated together, the laminate
having inner and outer layers which are of the same metal.
3. A printhead assembly according to claim 1, wherein:
15 the printhead is fabricated from silicon.
4. A printhead assembly according to claim 1, wherein:
the outer shell has an odd number of longitudinally extending layers, being at least
three in number, layers being arranged symmetrically about a central layer.
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5. A printhead assembly according to claim 1, wherein:
a coefficient of thermal expansion of the core and a coefficient of thermal
expansion of the shell are different.
- 25 6. A printhead assembly according to claim 4, wherein:
the laminated shell comprises two or more different materials, each having a
different coefficient of thermal expansion.
7. A printhead assembly according to claim 1, wherein:
30 the extrusion comprises adjacent reservoirs which collectively lead to an area
adapted to receive a printhead which is carried by the core.

8. A printhead assembly according to claim 2, wherein:
the laminated shell comprises inner and outer layers of invar.
9. A printhead assembly according to claim 1, wherein:
5 the core is an extruded and elongated body having a plurality of interior reservoirs,
the reservoirs each having an ink exit opening, the openings converging into an area
adapted to receive the printhead.
10. A printhead assembly according to claim 1, wherein:
10 the body is a plastic extrusion.
11. A printhead assembly according to claim 1, wherein:
the core is adapted to be encased by the shell, the body and shell.
12. A printhead assembly according to claim 11, wherein:
15 the body includes a portion which protrudes beyond the shell, this portion receiving
the printhead.
13. A printhead assembly according to claim 10, wherein:
20 the body is internally subdivided by extruded membranes to define the reservoirs.
14. A printhead assembly according to claim 13, wherein:
the reservoirs are four in number.
15. A printhead assembly according to claim 1, wherein:
25 the core has a coefficient of expansion which is less than the coefficient of
expansion of silicon, and the shell has a coefficient of expansion which is greater
than the coefficient of expansion of silicon.
16. A printhead assembly according to claim 1, wherein:
30 the shell comprises at least two materials bonded to one another and having
coefficients of expansion which are different than the coefficient of expansion of

silicon, one material having a coefficient of expansion which is greater than the coefficient of expansion of silicon and another material having a coefficient of expansion which is less than the coefficient of expansion of silicon.

- 5 17. A printhead assembly according to claim 1, wherein:
the laminated shell comprises hot rolled layers of metal.
18. A printhead assembly according to claim 1, further comprising:
a modular printhead bonded to the core, the printhead comprising a plurality of
10 modules disposed along the core.
19. A printhead assembly according to claim 18, wherein:
each module is fabricated from silicon.
- 15 20. A printhead assembly according to claim 19, wherein:
each module further comprises a MEMS structure.